

Preliminary Data Gap Analysis  
Pebble Project Environmental Impact Statement

Resource: Cultural Resources (including Historical Properties)			
Project Component	Analysis Component	Description	Data Recommendations
Mine Site <ul style="list-style-type: none"> <li>• Open pit</li> <li>• TSF</li> <li>• Power plant</li> <li>• Water plants</li> <li>• Processing facility</li> <li>• Supporting infrastructure</li> </ul>	Cultural Resources	1) Clarity on extent of survey coverage in Mine Site, acreage of high and moderate potential area defined vs. how much was actually surveyed. 2) Cultural Resource Surveys Since 2013 3) Place name info and oral history data 4) NRHP Eligible Sites vs. Potentially Eligible Sites	1) Provide clarification on the extent of the field survey and what specific areas were actually covered. Need to evaluate methods, understand number of high potential areas identified vs. number actually field surveyed, and develop cumulative data (total acres surveyed, total number of test pits, total number of sites, etc). Need detailed examination of GIS cultural survey data (See GIS Layers needed) over proposed locations of mine site components and connecting infrastructure.  Provide 2011 Cultural Resource Field Methodology Update and Employee Training Program Report (prepared by SRBA), and The Methodology Updates references in the annual reports.  Provide Cultural Resource GIS Predictive Model and maps used to delineate high, moderate, and low probability areas as developed by SRBA, (2013 annual report cites development of a GIS-based slope and wetland analysis, and GIS coastal subsistence and coastal geomorphology analysis in addition to in-field archaeology potential assessments).  2) SRBA completed annual reports 2004 through 2013, Please clarify if additional surveys have

			<p>occurred 2013 to current. If so, provide study reports.</p> <p>3) Numerous oral interviews occurred, and a place name map was developed by SRBA – analysis of this data will overlap with Subsistence effort. Clarify if any fieldwork occurred to verify cultural locations identified through oral interviews. If available, provide transcriptions/notes and place name GIS data collected by SRBA.</p> <p>4) SRBA did not evaluate any sites for inclusion on the National Register of Historic Places (NRHP). Surveys were apparently scoped as “identification phase” and recommended that all sites be considered “potentially eligible” per Appendix C (USACE alternative procedures for Section 106). Need clarification on consideration of “potentially eligible sites” as NRHP eligible for purposes of EIS.</p>
<p>Amakdedori Port</p> <ul style="list-style-type: none"> <li>• Causeway</li> <li>• Dredge channel</li> <li>• Port facilities</li> <li>• Airstrip</li> <li>• Disposal Area</li> </ul>	Cultural Resources	<p>1) No survey of currently proposed port location. Clarity on extent of survey coverage compared to Port and components.</p> <p>2) Marine archaeology review of Port’s off-shore components (causeway and dredge channel)</p> <p>3) Clarification if place name or oral history interviews included the proposed port location.</p>	<p>1) Field survey would allow for a more complete and robust analysis, as there is currently very limited data available at this location. SRBA did conduct field survey of a repeater tower and weather station (2013) near Amakdedori, but no other survey in the currently proposed Port location has occurred (based on survey map 2005-2013 for the Extended Cook Inlet Baseline Study Area). SRBA completed a literature review for proposed off-shore port location drilling localities, and completed a port site survey in 2006, but each of these were in different port locations north of Amakdedori.</p> <p>Provide survey data against proposed locations of port and components to determine extent of survey coverage.</p>

			<p>2) Marine archaeology investigations of off shore components would allow for more complete and robust analysis. This would include literature review coupled with analysis of core drilling, side scan sonar, and other data collected for the dredge channel and causeway locations.</p> <p>3) If available, provide transcriptions/notes and place name GIS data collected by SRBA to determine if additional place names are present in the currently proposed port location.</p>
Transportation Corridor	Cultural Resources	1) No systematic cultural resources survey	<p>1) Field survey would allow for a more complete and robust analysis. There is currently very limited data available that would enable a description of affected environment and assessment of impacts. It does not appear any cultural resources survey has occurred of this project component. Field survey would entail literature review, modeling of the corridor, and field investigation of medium and high potential areas for cultural resources.</p> <p>Provide survey data against proposed locations of Transportation Corridor and components (ferry terminals) to determine extent of survey coverage. North Ferry terminal and road to Mine Site may be partially covered by previous surveys. Port to South Ferry Terminal does not appear to be surveyed at all.</p>
Pipeline Corridor	Cultural Resources	<p>1) No Cultural Resource Review</p> <p>2) Marine archaeology (includes shipwrecks)</p>	<p>1) Provide confirmation that no cultural resource review has occurred of pipeline's water crossing and on-shore facilities.</p> <p>2) Marine/underwater archaeology investigations of off shore components would allow for more complete and robust analysis. This would include literature review coupled with analysis</p>

			<p>of core drilling, side scan sonar, and other data collected for siting underwater portions of route.</p> <p>For onshore sections, see field survey recommendations for Transportation Corridor.</p>
All	Cultural Resources	Section 106 consultation status.	<p>Reports say consultation was initiated in 2008 with letters being sent to tribes, and that as of 2013, no tribes had responded. Provide documentation, if available, concerning any Section 106 consultation activities completed to date.</p>

#### Data Reviewed

1. Environmental Baseline Document, Chapter 22
2. Alaska Heritage Resource Survey (AHRS) on-line
3. USACE PLP DA Permit Application
4. Annual Progress reports for Cultural Resource Investigations completed by SRBA (2006-2013).

#### GIS Layers Needed

1. Predictive Model for cultural resources, if it exists.
2. Cultural resource survey coverage with testing locations, known sites, newly identified sites, and other data used to compile archaeology survey maps presented in the EBD. Currently in progress with Tom Shultz using data available from AHRS, but native data preferred (see #3 below).
3. Native GIS cultural resource survey data from Steven R. Braund and Associates (SRBA)
  - a. Annual survey data with site locations, testing locations, etc.
  - b. Slope and Wetlands GIS Model maps showing low, medium, and high potential areas.
  - c. Coastal Subsistence and Coastal geomorphology model.
  - d. Restrictive Zone classification locations.
  - e. Place names GIS location data
4. Subsistence maps/locations.